

REMARKS

This Amendment responds to the Official Action mailed September 1, 2005. By this Amendment, claims 72 and 89 have been cancelled. The remaining claims have been amended to accommodate this cancellation. Further, all claims, either directly or through dependence on amended claims, now recite the viscosity modifier as "physically stable solid material". This Amendment has been made to distinguish the present claims from Ertle et al., U.S. Patent No. 6,312, 639.

In the Official Action, Ertle et al. was applied to reject claims 72-78, 80, 82, 83, 85-91 either under 35 U.S.C. 102 or 35 U.S.C. 103. For a *prima facie* case of either anticipation or obviousness, the prior art reference (or references when combined for obviousness) must teach or, in the case of obviousness, suggest all of the claim limitations. MPEP §§ 2131, 2143.

Ertle et al. teaches the use of particular silicates. These are defined in the Summary of the Invention at Column 4, beginning on line 1:

The particulate silicate utilized in the invention is one which intumesces or expands to at least twice its original volume at temperatures from about 250° to 1100° F.

These silicates are not physically stable. It is thought that the requirement for intumescence is operative to provide creation of large spumiform particles in the thermoplastic resins the creation of which or subsequent presence of affect thermoplastic melt processing.

The claims of the present invention now specifically recite viscosity modifiers which are "physically stable solid material". These materials are employed at "particle sizes less than about 75 microns equivalent spherical diameter" It is thought that

the employment of this physically stable solid material changes the molecular arrangement of the polymeric liquid.

The intumescenting of the silicates in Ertle et al. and the physical stability of the viscosity modifiers in the present claims distinguish one from the other. Further, the physical effects of Ertle et al. and the materials of the present claims are believed to result from different mechanisms. However, the specific phenomenon occurring remains, apparently in each case, subject to speculation. In view of the amendments to all of the claims regarding the physically stable solid material, Ertle et al. cannot support the objective *prima facie* case for anticipation or the objective components of the subjective *prima facie* case for obviousness. Further, as the phenomenon occurring in Ertle et al. is apparently not the same and Ertle et al. teaches against that which is now employed in the present claims, Ertle et al. fails to support a *prima facie* case of obviousness as there is no suggestion or motivation for not employing the intumescenting material. All remaining claims are thus distinguished from Ertle et al.

Pending current claims 73, 75-88, 90-96 stand rejected as either anticipated or obvious over the international publication WO 00/73370 to Booth. Effectively the same claims are also rejected under obviousness-type double patenting over U.S. Patent No. 6,921,789 to Booth et al. The priority application to the international publication of Booth was also the priority application for U.S. Patent No. 6,921,789 to Booth et al. Booth et al. is a continuation-in-part with claims which relate back and are supported in their entirety upon the earlier filed application common to both the international publication and the issued patent applied here.

In the prosecution specifically resulting in Booth et al., claims were filed which expanded the claim scope beyond thermoplastic resin. This expansion included terms which were inclusive of thermoset polymeric liquid and thermoplastic vulcanizate polymeric liquid. Examiner Peter D. Mulcahy, of Group Art Unit 1713 rejected such claims and the expansion of the claimed subject matter in an in-person interview. Applicants were told that this would not be allowable. In the Interview Summary, Applicants stated:

Applicants asserted the right to expand the claims beyond thermoplastic resin even though the only expressed disclosure and statements of invention were for thermoplastic resin. This was presented on the basis that the response to the addition of the vitreous material was physical and not chemical and, because the resins were physically the same or similar in thermoset resins and in combinations of thermosets and thermoplastics, the effect was predictable regardless of later chemical response in the formed state. Examiner Mulcahy asserted lack of predictability and Applicants agreed to move any such issue to a continuing application.

The continuing application has indeed been filed and is Application No. 11/190,505. It was filed July 26, 2005.

From the foregoing, it is apparent that the position taken by the Patent Office in the present application is directly inconsistent with the position taken by the Patent Office in the application resulting in U.S. Patent No. 6,921,789 to Booth et al. In Booth et al., a position was taken that predictability is limited to thermoplastic resin and that extension of claim scope to include thermoset and vulcanizates was inappropriate. In the current Official Action, the position is taken that thermosets and vulcanizates were objectively disclosed in Booth et al. and anticipate the present claims.

In independent claims 73, 75 and 90, the polymeric liquid is selected from the group consisting of "a thermoset polymeric liquid and a thermoplastic vulcanizate polymeric liquid...." Claim 74 and claims depending therefrom call for a polymeric liquid. However, other limitations have removed claim 74 *et al.* from any rejection based on the Booth prior art.

In light of this inconsistency in positions taken by the Patent Office, a request is made for a telephone interview to discuss resolution of same. Applicants are open to suggestion regarding the format of any such conference.

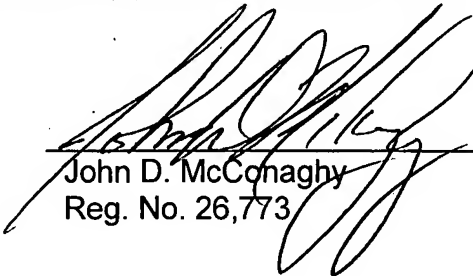
On page 3 of the Official Action reference is made to claims 77-78. This reference is not understood as there is no recitation prohibiting the presence of crystalline silicates. Further clarification can be discussed during the interview.

In view of the foregoing, it is asserted that Ertle *et al.* has been distinguished from all remaining and amended claims, that claim 74 and claims depending therefrom are specifically patentable without Ertle *et al.* and that the remaining claims require resolution of the inconsistency in position within the U.S. Patent and Trademark Office. Reconsideration and a telephone conference are earnestly solicited.

Respectfully submitted,

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January 31, 2006

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